



June 24, 1998

Mr. Chuck Schwer
VT Department of Environmental Conservation
Waste Management Division
103 South Main St./ West Bldg.
Waterbury, VT 05671-0404

RE: Subsurface Investigation, Ted Green Ford, Stockbridge, VT (VTDEC #97-2240)

Dear Chuck:

Enclosed please find the June 1998 *Report on the Site Investigation of Suspected Subsurface Petroleum Contamination* for the Ted Green Ford site in Stockbridge, Vermont. Mr. Jack Green requested that we forward a copy to you. Please call if you have any questions or comments.

Sincerely,

Timothy J. Kelly, PG
Geologist

Encl.

cc: Jack Green (w/o encl.)
GI #119741155

Bob -
I have some
concerns as to
the store, that no
water supply well
samples were collected.
You agree?

**REPORT ON THE
SITE INVESTIGATION
OF SUSPECTED SUBSURFACE
PETROLEUM CONTAMINATION**

AT

**TED GREEN FORD
Route 100, Stockbridge, Vermont**

VTDEC Site #97-2240
Griffin Proj. #119741155

June 1998

Prepared For:

Jack Green
Ted Green Ford
PO Box 8
Stockbridge, VT 05772

Prepared by



P.O. Box 943/ 19 Commerce St.
Williston, Vermont 05495
(802) 865-4288

WASTE

JUN 26 10 13 AM '98

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I. INTRODUCTION

This report provides a summary of the tasks completed for the site investigation of suspected subsurface petroleum contamination at the former Ted Green Ford on Route 100 in Stockbridge, Vermont (see Site Location Map in Appendix A). Results of the following investigative tasks performed by Griffin International, Inc., (Griffin) are presented:

- ◇ site survey;
- ◇ discussion of groundwater flow direction and gradient;
- ◇ groundwater sampling and analyses;
- ◇ sensitive receptor survey.

This work is being performed based on requests from Mr. Charles Schwer of the Vermont Department of Environmental Conservation (VTDEC) in a letter to Mr. Theodore Green of Ted Green Ford, dated November 11, 1997. Work was performed in accordance with the December 12, 1997, *Work Plan and Cost Estimate for Subsurface Investigation of Suspected Petroleum Contamination*, prepared by Griffin and approved by Mr. Theodore Green of Ted Green Ford. Mr. Schwer approved the work plan in a letter dated March 17, 1998.

II. SITE BACKGROUND

The Ted Green Ford property is located on the south side of Route 100 in Stockbridge, Vermont (see Site Location Map in Appendix A). Topography at the site consists of terraces associated with the White River alluvial plain. The property is bounded to the north by residential properties and on the east by Stockbridge Road, across which are several residential/commercial properties. The property is bounded to the west and south by open, level fields adjacent to the White River. The White River flows south approximately 800 feet west of the property.

The supply well for the Ted Green Ford property is located across Stockbridge Road and northeast of the subject site. This well serves the subject site and the commercial/residential buildings across Stockbridge Road from the subject site. The other properties in the area are serviced by private water supply wells and septic systems. The site is underlain by recent alluvial sediments consisting of sand and gravel according to the *Surficial Geologic Map of Vermont* (Ref. 1). The bedrock underlying the site is mapped as the Stowe Formation, which consists of Ordovician-aged, quartz-sericite-chlorite phyllite and schist according to the *Centennial Geologic Map of Vermont* (Ref. 2). No bedrock exposures were observed on the Ted Green Ford property or immediately adjacent properties.

On August 8, 1997, two waste oil underground storage tanks (USTs) were closed and the closure inspection was performed at the site. A UST closure report, dated August 13, 1997, was forwarded to the VTDEC UST Program. One UST was in fair condition and the second was in

poor condition, with holes in it that were identified to be the result of the removal process. Very low concentrations of volatile organic compounds (VOCs), ranging from 0 to 1.6 parts per million (ppm), were detected with an HNuTM Model PI-101 portable photoionization detector (PID) in soils collected from depths of 1 to 6 feet below grade. As per VTDEC regulations, two soil samples were collected from this excavation for laboratory analysis. Soil sample 1 (SS1) was collected from the visibly stained area near the fill pipe for the eastern UST (UST #2). Soil sample 2 (SS2) was collected from the bottom of the common tank pit at a depth of approximately 8 feet below grade. These samples were analyzed via Modified EPA Method 8100 for total petroleum hydrocarbons (TPHs) and via EPA Method 8240 for VOCs by Endyne, Inc., laboratory in Williston, Vermont. Analytical laboratory reports for the soil sample analyses were attached to a letter dated September 3, 1997, from Mr. Robert Higgins of Griffin to Ms. Sue Thayer of the VTDEC regarding the UST closure. Soil sample 1 (SS1) was collected from the visibly stained area near the fill pipe for UST #2. Soil sample 2 (SS2) was collected from the bottom of the common tank pit at a depth of approximately 8 feet below grade. The analytical results indicate that SS1 contains 223 parts per billion (ppb) tetrachloroethene, 30.2 ppb of toluene, and a TPH concentration of 77,600 parts per million (ppm). The TPH concentration for SS2 is 68.2 ppm. SS2 is non-detect for all other targeted compounds.

Based on the available data, the suspected source of petroleum contamination at the site is spills at the former fill port of UST #2. Based on the available data, petroleum hydrocarbon and VOC contamination in on-site soils was apparently limited to a small volume of soil in the vicinity of the former UST #2 fill port.

III. INVESTIGATIVE PROCEDURES

To further define the extent of subsurface petroleum contamination in the area of Ted Green Ford, the following additional investigative tasks were undertaken as per the November 12, 1997, Work Plan: an assessment of the utility of the existing monitoring well network; site survey of the four existing monitoring wells; groundwater sampling from the four wells, determination of groundwater flow direction and gradient; analyses of groundwater samples for petroleum hydrocarbons and VOCs; and an evaluation of sensitive receptors.

A. Monitoring Well Network Assessment

Four monitoring wells were previously installed at the site as leak detection monitoring wells for the two waste oil USTs. On April 16, 1998, the utility of each of the monitoring wells was assessed by determining the depth to the bottom of the well and the depth to water. In addition, Mr. Brett Stratton, who was responsible for weekly leak detection monitoring of the USTs, was interviewed. Based on observations made by Mr. Stratton over several years, the monitoring wells typically have water in them from October to July. In addition, the four wells are in the immediate vicinity of the former location of the USTs and are arranged around the former UST

excavation in an array that is likely to intercept groundwater flowing from the area under the USTs. Therefore the existing monitoring well network was determined to be representative of on-site groundwater conditions within close proximity of the former waste oil USTs.

The depths of the existing monitoring wells were gauged during groundwater sampling on April 16, 1998. The total depths of wells MW1 through MW4 are as follows: MW1, 25.7 feet below grade; MW2, 16.2 feet below grade; MW3, 15.5 feet below grade; and MW4, 23.6 feet below grade. The wells are constructed of 2" PVC as observed by Griffin personnel on April 16, 1998. No other information regarding the construction of these wells was available at the time this report was submitted.

B. Discussion of Groundwater Flow Direction and Gradient

The four wells were located in azimuth and elevation for inclusion on the Site Sketch presented in Appendix A. The top of PVC casing in MW1 was assigned an arbitrary elevation of 100.00 feet. The locations of a shed on the Ted Green Ford property and other prominent site features were surveyed for inclusion on this Site Sketch.

Prior to groundwater sampling on April 16, 1998, all four on-site monitoring wells were monitored for presence of free floating product and depths to water. Results are tabulated as Liquid Level Monitoring Data in Appendix B. No free-phase product was noted in the wells on April 16, 1998. For each well, the measured depth to water was subtracted from the surveyed elevation of the measurement reference point to determine the water table elevation. Water table elevations were plotted on the Site Sketch to generate the Groundwater Contour Map presented in Appendix A. From this figure it can be seen that the groundwater flow is directed generally to the northwest toward the White River at an approximate gradient of 7.3%.

C. Groundwater Sampling and Analyses

A groundwater sample was collected from each of the four on-site monitoring wells, using disposable bailers, on April 16, 1998. Groundwater samples were analyzed by EPA Method 8021 by Endyne, Inc., laboratory of Williston, Vermont, for VOCs and by Modified EPA Method 8100 for TPH. Quality control (QC) samples (a trip blank and duplicate sample) were also collected. Analytical laboratory reports are included in Appendix C. A very low concentration of chloroform was detected in the trip blank. Based on a review of Griffin files, the laboratory-supplied blank water was most likely contaminated with chloroform. Analytical results of the trip blank and duplicate sample indicate that adequate Quality Assurance/ Quality Control was maintained throughout sample collection and analyses.

No VOCs were detected in samples collected from the four on-site monitoring wells on April 16, 1998. No TPHs were detected in samples collected from the four on-site monitoring wells on April 16, 1998.

IV. EVALUATION OF POTENTIALLY SENSITIVE RECEPTORS

The following potential sensitive receptors in the vicinity of the Ted Green Ford site were identified:

- ♦ on-site soils and groundwater,
- ♦ the supply well for the Ted Green Ford property, located northeast of the site,
- ♦ the White River, located approximately 800 feet west of the Ted Green Ford site.

No VOCs were detected in groundwater samples collected from the four on-site monitoring wells on April 16, 1998. The soil samples collected from the UST excavation during the inspection conducted on August 8, 1997, indicate that significant petroleum hydrocarbon and VOC contamination was limited to a small volume of soils from the immediate vicinity of the former UST #2 fill port. Based on the available data, there has been no apparent petroleum hydrocarbon or VOC impact to groundwater in the direct vicinity of the former waste oil USTs. Based on the available data, there is minimal environmental risk posed to neighboring supply wells and the White River, the current risks posed to this surface water body are likely to be minimal due to the very low source strength.

V. CONCLUSIONS

Based upon the results of the above investigative tasks, Griffin presents the following conclusions:

- 1) Based on the laboratory results of the soil sample analyses from the UST removal inspection and the results of this site investigation, it appears likely that the limited on-site soil contamination is the result of past spills at the UST #2 fill pipe. Based on the available data, petroleum hydrocarbon and VOC contamination in on-site soils is limited to a small volume of soil from the vicinity of the former UST #2 fill pipe.
- 2) MW1 through MW4 are 2-inch, PVC monitoring wells previously installed as leak detection monitoring wells for the two former waste oil USTs. The monitoring wells were installed to depths ranging from 15.5 feet to 25.7 feet below grade, based on measurements obtained during groundwater sampling on April 16, 1998.
- 3) Groundwater was encountered at depths ranging from 9.3 to 16.9 feet below grade on April 16, 1998. Based on the groundwater elevations measured on April 16, 1998, groundwater in the vicinity of the former UST excavation flows to the north at an approximate gradient of 7%.

- 4) No free phase product was detected at this site on April 16, 1998.
- 5) No dissolved petroleum hydrocarbons or VOCs targeted by EPA Method 8021 were detected in the samples collected from the four on-site monitoring wells.
- 6) Risks posed to potentially sensitive receptors in the vicinity of Ted Green Ford appear minimal, based on currently available data.

VI. RECOMMENDATIONS

Based upon the above conclusions, Griffin recommends that the site be considered for closure and be removed from the VTDEC Active Hazardous Waste Sites List. This recommendation is offered based upon achievement of the following closure criteria, as per the VTDEC Site Management Activity Completed (SMAC) Checklist:

- 1) The source(s), nature, and extent of the petroleum contamination at the site has been adequately defined.

The source of petroleum contamination detected in soils and groundwater at the Ted Green Ford site was from an apparent release of waste oil from past spills at the fill pipe of UST #2, which was removed from the site on August 8, 1997. The extent of the waste oil contamination has been defined by the UST inspection and one round of groundwater sampling, which showed a limited volume of contaminated soil and no dissolved contaminants detected in groundwater.

- 2) Source(s) has been removed, remediated, or adequately contained.

The two 4,000-gallon, single-walled, steel, waste oil USTs were removed from the site on August 8, 1997.

- 3) Levels of contaminants in soil and groundwater shall be stable, falling, or non-detectable.

Results of the groundwater sampling indicate that no dissolved petroleum hydrocarbons or VOC contamination was detected in groundwater at the site. With the waste oil USTs removed, the concentration of residual adsorbed contamination in the limited volume of on-site soils is likely to decrease as the constituents degrade.

- 4) Groundwater enforcement standards are met on entire property.

The groundwater analytical results from the April 16, 1998, round of sampling indicate that groundwater enforcement standards are met in the former waste oil UST source area on the subject property.

5) Soil guideline levels are met. If not, engineering or institutional controls are in place.

The concentration of tetrachloroethene in SS1, collected from the immediate vicinity of the fill pipe, was well below the EPA Region III Risk-Based concentration (Ref. 4) of 12 mg/kg for a residential area. The concentration of toluene in SS1 was well below the EPA Region III Risk-Based concentration of 16,000 mg/kg for a residential area. There is no EPA Region III Risk-Based standard for total petroleum hydrocarbons. The TPH concentration in soils (77,600 ppm) was above the VTDEC Waste Management Division Sites Management Section guideline of 1,000 ppm in soils at commercial/industrial facilities. However, contamination was limited to the small volume soils in the vicinity of the UST #2 fill pipe. These contaminated soils are buried by clean fill and paved over with asphalt and are inaccessible to individuals conducting normal activities at the site. Over time, adsorbed contaminant concentrations in the former UST pit will likely decrease due to the natural degradational processes.

6) No unacceptable threat to human health or the environment exists on site.

Residual subsurface petroleum hydrocarbon and VOC contamination at the Ted Green Ford site does not pose an unreasonable risk to human health and safety or the environment for the following reasons:

- ♦ No petroleum hydrocarbons or VOCs have been detected in on-site groundwater.
- ♦ Based on the available groundwater flow direction and gradient data, the private water supply wells that serve the subject property and properties immediately surrounding the site are either upgradient or cross-gradient of the former UST excavation.
- ♦ The limited volume of contaminated soils at the site is buried by clean fill and capped with pavement and is inaccessible to individuals conducting normal activities at the site.

7) Site meets RCRA requirements.

Available records indicate that the Ted Green Ford property is not a known Resource Conservation and Recovery Act (RCRA) site as defined in 40 CFR 264.

8) Site meets CERCLA requirements.

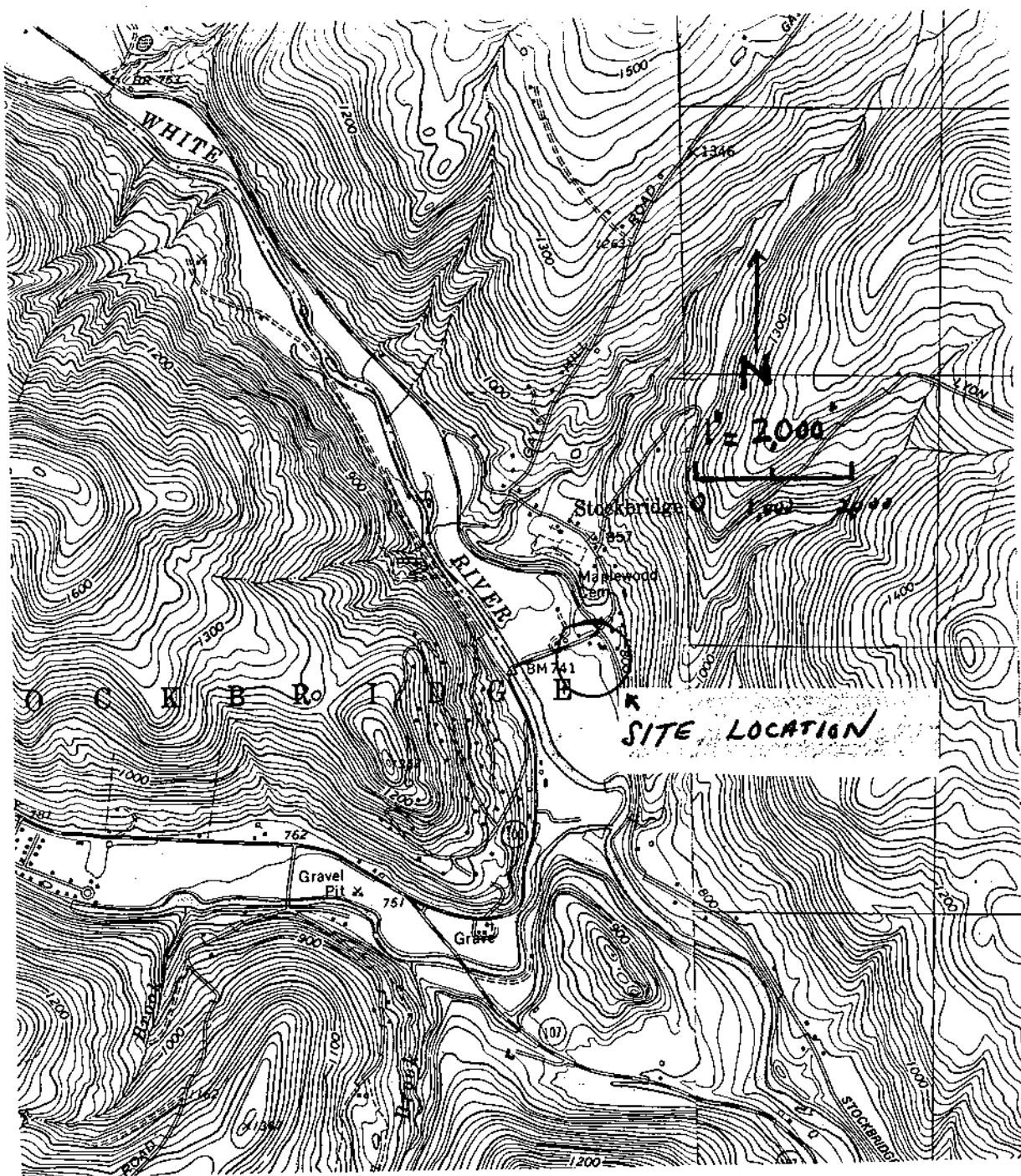
Available records indicate that the Ted Green Ford property is not a known Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site as defined in 40 CFR 300.

VII. REFERENCES

1. Doll, Charles G., D.P. Stewart, and P. MacClintock, eds., 1970, *Surficial Geologic Map of Vermont*, State of Vermont.
2. Doll, Charles G., W.M. Cady, J. B. Thompson, Jr., and M.P. Billings eds., 1961, *Centennial Geologic Map of Vermont*, State of Vermont.
3. Personal Communication, Brett Stratton of Ted Green Ford, April 16, 1998, regarding observations made on the four existing on-site monitoring wells at Ted Green Ford.
2. U.S. Environmental Protection Agency Region III, October 22, 1997, *EPA Risk-Based Concentrations*, U.S. Environmental Protection Agency, 13 p.

APPENDIX A

Site Maps



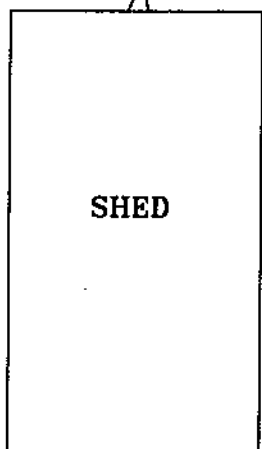
SITE LOCATION MAP

TED GREEN FORD
 STOCKBRIDGE, VERMONT
 Rochester (1970) and Bethel (1980), VT.,
 USGS QUADRANGLE MAPS
 1 : 24,000



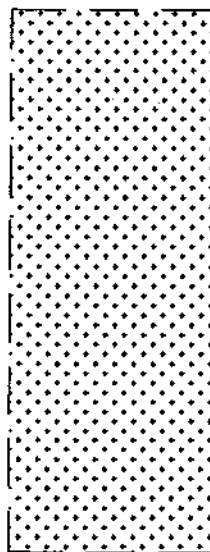
← EDGE OF PAVEMENT

PAVED AREA



SHED

MW4



← FORMER
TANK PIT

MW3



MEADOW

MW1



MW2



LEGEND

MW2

MONITORING WELL



← CULVERT

JOB #: 119741155



TED GREEN FORD

STOCKBRIDGE, VERMONT

SITE SKETCH

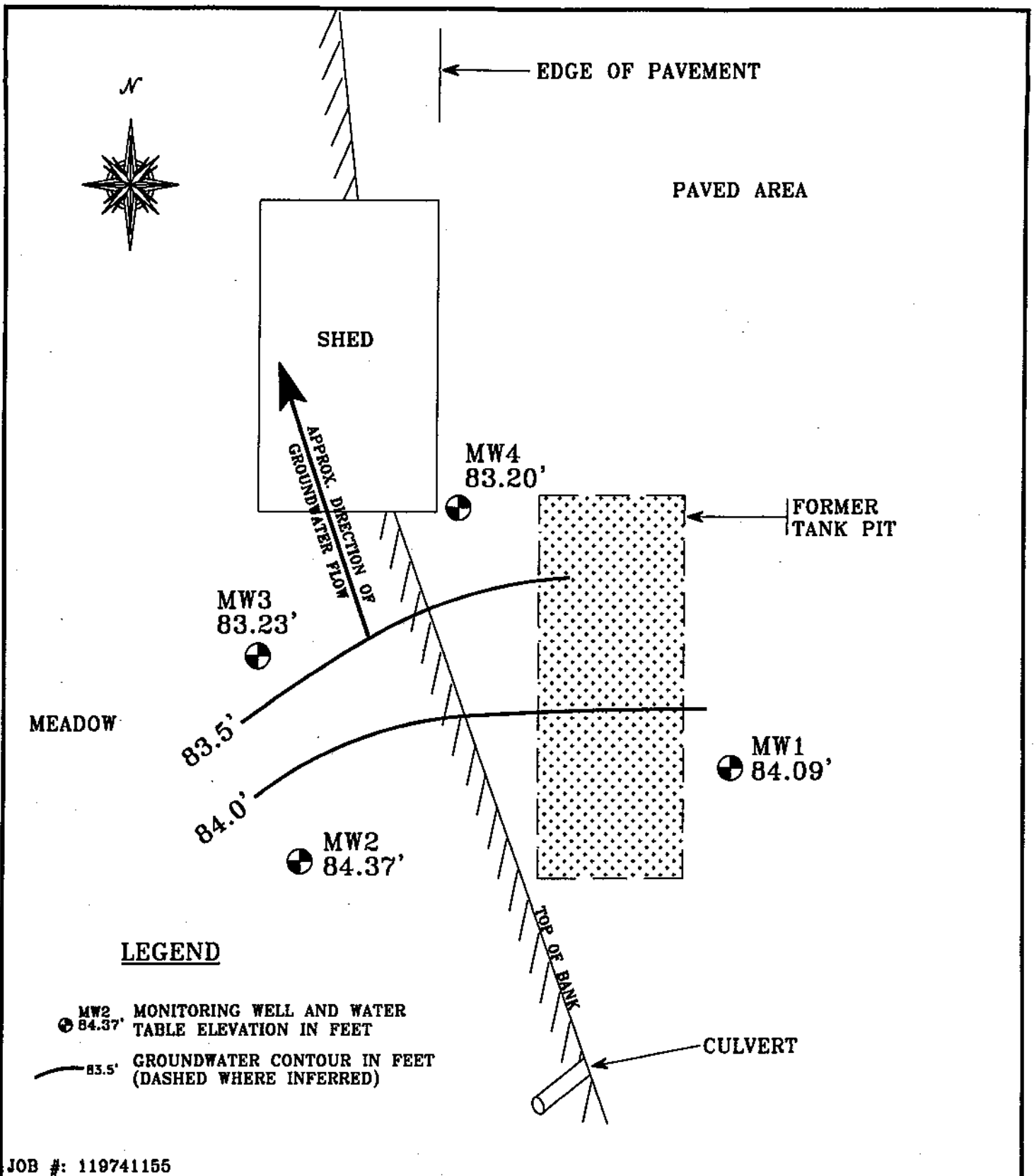
DATE: 6/11/98

DWG.#:2

SCALE: 1"=10'

DRN.:SB

APP.:TK



TED GREEN FORD

STOCKBRIDGE, VERMONT

GROUNDWATER CONTOUR MAP
MEASUREMENT DATE: 4/16/98

DATE: 6/11/98	DWG.#:3	SCALE: 1"=10'	DRN.:SB	APP.:TK
---------------	---------	---------------	---------	---------

APPENDIX B

Liquid Level Data

**Liquid Level Monitoring Data, Ted Green Ford
Stockbridge, VT**

Monitoring Date: 4-16-98

Well I.D.	Top of Casing Elevation	Depth to Product	Depth to Water	Product Thickness	Water Table Elevation
MW-1	100.00	-	15.91	-	84.09
MW-2	93.68	-	9.31	-	84.37
MW-3	92.77	-	9.54	-	83.23
MW-4	100.05	-	16.85	-	83.20

Note: All values reported in feet.
NM = Not Measured

APPENDIX C

Groundwater Quality Data, April 16, 1998



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/#119741155
DATE REPORTED: April 30, 1998
DATE SAMPLED: April 16, 1998

PROJECT CODE: GITG1268
REF. #: 119,244 - 119,249

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody record.

Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

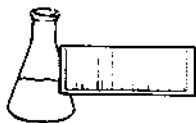
Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

TOTAL PETROLEUM HYDROCARBONS (TPH) BY MODIFIED EPA METHOD 8100

DATE: April 30, 1998
CLIENT: Griffin International
PROJECT: Ted Green Ford/#119741155
PROJECT CODE: GITG1268
COLLECTED BY: T. Kelly
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998

Reference #	Sample ID	Concentration (mg/L) ¹
119,244	Trip Blank; 815	ND ²
119,245	MW1; 1110	ND
119,246	MW2; 1145	ND
119,247	Dup; 1153	ND
119,248	MW4; 1232	ND
119,249	MW3; 1249	ND

Notes:

- 1 Values quantitated based on the response of #2 Fuel Oil. Method detection limit is 0.4 mg/L.
- 2 None detected



ENDYNE, INC.

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32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

119741155

REPORT OF LABORATORY ANALYSIS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998

PROJECT CODE: GITG1267
REF. #: 119,238 - 119,243

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody.

Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy were monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8021 COMPOUNDS BY GC/MS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,238
STATION: Trip Blank
TIME SAMPLED: 8:15
SAMPLER: T. Kelly

Parameter	Detection Limit (ug/L)	Result (ug/L)	Parameter	Detection Limit (ug/L)	Result (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	1.4	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 101.%
Toluene-d8 : 90.%
4-Bromofluorobenzene : 112.%

NOTES:

1 None detected



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8021 COMPOUNDS BY GC/MS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,239
STATION: MW 1
TIME SAMPLED: 11:10
SAMPLER: T. Kelly

<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)	<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	ND	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 101.%
Toluene-d8 : 100.%
4-Bromofluorobenzene : 112.%

NOTES:

1 None detected

**ENDYNE, INC.****Laboratory Services**

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT**EPA METHOD 8021 COMPOUNDS BY GC/MS**

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,240
STATION: MW 2
TIME SAMPLED: 11:45
SAMPLER: T. Kelly

<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)	<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	ND	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 100.%
Toluene-d8 : 99.%
4-Bromofluorobenzene : 112.%

NOTES:

1 None detected



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8021 COMPOUNDS BY GC/MS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,241
STATION: DUP
TIME SAMPLED: 11:53
SAMPLER: T. Kelly

Parameter	Detection Limit (ug/L)	Result (ug/L)	Parameter	Detection Limit (ug/L)	Result (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	ND	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 105.%
Toluene-d8 : 99.%
4-Bromofluorobenzene : 113.%

NOTES:

1 None detected



ENDYNE, INC.

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LABORATORY REPORT

EPA METHOD 8021 COMPOUNDS BY GC/MS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,242
STATION: MW 4
TIME SAMPLED: 12:32
SAMPLER: T. Kelly

Parameter	Detection Limit (ug/L)	Result (ug/L)	Parameter	Detection Limit (ug/L)	Result (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	ND	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 104.4%
Toluene-d8 : 92.4%
4-Bromofluorobenzene : 113.4%

NOTES:

1 None detected



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LABORATORY REPORT

EPA METHOD 8021 COMPOUNDS BY GC/MS

CLIENT: Griffin International
PROJECT NAME: Ted Green Ford/119741155
REPORT DATE: April 28, 1998
DATE SAMPLED: April 16, 1998
DATE RECEIVED: April 17, 1998
ANALYSIS DATE: April 28, 1998

PROJECT CODE: GITG1267
REF.#: 119,243
STATION: MW 3
TIME SAMPLED: 12:49
SAMPLER: T. Kelly

<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)	<u>Parameter</u>	<u>Detection Limit</u> (ug/L)	<u>Result</u> (ug/L)
Benzene	1	ND ¹	1,3-Dichloropropane	1	ND
Bromobenzene	1	ND	2,2-Dichloropropane	1	ND
Bromochloromethane	2	ND	1,1-Dichloropropene	1	ND
Bromodichloromethane	1	ND	cis-1,3-Dichloropropene	1	ND
Bromoform	1	ND	trans-1,3-Dichloropropene	1	ND
Bromomethane	5	ND	Ethylbenzene	1	ND
n-Butylbenzene	1	ND	Hexachlorobutadiene	5	ND
sec-Butylbenzene	1	ND	Isopropylbenzene	1	ND
tert-Butylbenzene	1	ND	p-Isopropyltoluene	1	ND
Carbon Tetrachloride	1	ND	Methylene Chloride	5	ND
Chlorobenzene	1	ND	Naphthalene	5	ND
Chloroethane	5	ND	n-Propylbenzene	1	ND
Chloroform	1	ND	Styrene	2	ND
Chloromethane	10	ND	1,1,1,2-Tetrachloroethane	2	ND
2&4-Chlorotoluene	2	ND	1,1,2,2-Tetrachloroethane	2	ND
Dibromochloromethane	1	ND	Tetrachloroethene	1	ND
1,2-Dibromo-3-Chloropropane	2	ND	Toluene	1	ND
1,2-Dibromoethane	2	ND	1,2,3-Trichlorobenzene	2	ND
Dibromomethane	2	ND	1,2,4-Trichlorobenzene	2	ND
1,2-Dichlorobenzene	1	ND	1,1,1-Trichloroethane	1	ND
1,3-Dichlorobenzene	1	ND	1,1,2-Trichloroethane	1	ND
1,4-Dichlorobenzene	1	ND	Trichloroethene	1	ND
Dichlorodifluoromethane	10	ND	Trichlorofluoromethane	2	ND
1,1-Dichloroethane	1	ND	1,2,3-Trichloropropane	1	ND
1,2-Dichloroethane	1	ND	1,2,4-Trimethylbenzene	1	ND
1,1-Dichloroethene	1	ND	1,3,5-Trimethylbenzene	1	ND
cis-1,2-Dichloroethene	1	ND	Vinyl Chloride	5	ND
trans-1,2-Dichloroethene	1	ND	Total Xylenes	2	ND
1,2-Dichloropropane	1	ND	MTBE	2	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane : 103.%
Toluene-d8 : 104.%
4-Bromofluorobenzene : 112.%

NOTES:

1 None detected



GITG/268

CHAIN-OF-CUSTODY RECORD

26871

19741155 119,238 — 119,249

Project Name: <i>Ted Green Ford</i>	Reporting Address: <i>F. Griffin</i>	Billing Address: <i>Griffin</i>
Site Location: <i>Stockbridge, VT</i>		
Endyne Project Number: <i>GITG1267</i>	Company: <i>Griffin</i> Contact Name/Phone #: <i>T. 606/1865-428F</i>	Sampler Name: <i>T. K. 16</i> Phone #:

[illegible]

Relinquished by: Signature <i>[Signature]</i>	Received by: Signature <i>Tina Desrosiers</i>	Date/Time 4-17-98 10:05
Relinquished by: Signature <i>Tina Desrosiers</i>	Received by: Signature <i>[Signature]</i>	Date/Time 4-17-98 10:05

New York State Project: Yes No ☒

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										